

IN THE CLAIMS:

Please amend claims 1 and 6-8 and withdraw claims 2-5 and 9-11 as follows.

1. (Currently Amended) A tapping screw comprising:

a head portion; and

a shaft portion extending from said head portion, and forming a female screw in a prepared hole formed in an attached member while ~~the~~ a tip portion of said shaft portion is screwed into said prepared hole;

wherein said shaft portion has:

a columnar constant diameter portion extending from said head portion and having a constant diameter;

a reduced diameter portion of a truncated cone shape extending from the tip of said constant diameter portion in the direction opposed to said head portion, and reduced in diameter as it is advanced in the direction opposed to said head portion; and

a spiral screw thread continuously formed over the outer circumferential face of said constant diameter portion and the outer circumferential face of said reduced diameter portion,

wherein plural notch portions are formed in said screw thread in the circumferential direction of said shaft portion, all the said notch portions having a notch face, a rising wall and a corner portion,

wherein the notch portions are formed by form rolling,

wherein the notch portions are shallow such that the core diameter of each notch portion is larger than the core diameter of the screw thread at the same location, and

wherein each notch face has a stem face notched and formed radially inward from a crest of the screw thread,

wherein ~~each~~the rising wall is ~~approximately~~perpendicular to the screw rotating direction,

wherein each corner portion is formed at a diametrical outside end of said rising wall, and

wherein said stem face has one end connected in a position moved a predetermined angle α from said corner portion to a backward side in the rotating direction for removal, and also has a surface moved radially inward as it proceeds to the backward side in the rotating direction, and further has another end connected to the end of said rising wall on its diametrical inside.

2. (Withdrawn) The tapping screw according to claim 1, wherein said notch face has a stem face notched and formed on the diametrical inside from the top of said screw thread.

3. (Withdrawn) The tapping screw according to claim 1, wherein said rising wall is approximately perpendicular to the screw rotating direction.

4. (Withdrawn) The tapping screw according to claim 1, wherein said corner portion is formed at a diametrical outside end of said rising wall.

5. (Withdrawn) The tapping screw according to claim 2, wherein said stem face has one end connected in a position moved a predetermined angle α from said corner portion to a backward side in the rotating direction, and also has a surface moved in the diametrical inside direction as it proceeds to the backward side in the rotating direction, and further has another end connected to the end of said rising wall on its diametrical inside.

6. (Currently Amended) The tapping screw according to claim 1, wherein at least a portion of the screw thread remains intact on said notch ~~portion~~ portions.

7. (Currently Amended) The tapping screw according to claim 1, wherein the ~~top~~ crest of said screw thread is shaved on said notch ~~portion~~ portions.

8. (Currently Amended) The tapping screw according to claim 1, wherein said notch ~~portion~~ portions ~~is~~ are at the ~~top~~ crest of the screw thread in area of a few screw thread pitches from the tip portion of said reduced diameter portion through the tip portion of said constant diameter portion toward said head portion. -

9. (Withdrawn) A tapping screw comprising a head portion and a shaft portion extending from said head portion, and forming a female screw in a prepared hole formed in an attached member while the tip portion of said shaft portion is screwed into said prepared hole;

wherein said shaft portion has:

a columnar constant diameter portion extending from said head portion and having a constant diameter;

a reduced diameter portion of a truncated cone shape extending from the tip of said constant diameter portion in the direction opposed to said head portion, and reduced in diameter as it is advanced in the direction opposed to said head portion; and

a spiral screw thread continuously formed over the outer circumferential face of said constant diameter portion and the outer circumferential face of said reduced diameter portion; and

the outer shape seen from the axial direction of said screw thread is set to be non-circular in the specific area of said screw thread.

10. (Withdrawn) The tapping screw according to claim 9, wherein the outer shape of said constant diameter portion seen from the axial direction of said screw thread is set to be non-circular over a predetermined range in the axial direction from the boundary of said constant diameter portion and said reduced diameter portion.

11. (Withdrawn) The tapping screw according to claim 9, wherein the shape of said screw thread seen from its axial direction is a square shape, and the screw thread formed in the outer circumferential portion of said shaft portion and including the screw thread of the square outer shape seen from the axial direction rises in all forming areas without breaking its top portion.